

UNITED STATES DISTRICT COURT  
SOUTHERN DISTRICT OF NEW YORK

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DENISE COTE, District Judge:

Four related lawsuits have been filed against Apple and five publishers<sup>1</sup> for fixing the prices of e-books in violation of Section 1 of the Sherman Antitrust Act, 15 U.S.C. § 1 ("Sherman Act"). One of the actions was filed by the United States of America ("DOJ"). United States v. Apple Inc., 12 Civ. 2826 (S.D.N.Y.) (the "DOJ Action"). A second action was brought by thirty-three states and U.S. territories (the "States"). State of Texas v. Penguin Grp. (USA) Inc., 12 Civ. 3394 (S.D.N.Y.) (the "States' Action"). A third action was brought by private plaintiffs as a class action. In re Electronic Books Antitrust Litig., 11 MD 2293 (S.D.N.Y.). The fourth action, brought by all of the states of the Union except for Minnesota, as well as the District of Columbia and five U.S. territories and possessions, has been settled. State of Texas, et al. v. Hachette Book Grp., Inc., et al., 12 Civ. 6625 (S.D.N.Y.). The DOJ, States, and class have settled with each of the Publisher Defendants.

Apple alone went to trial, and in a bench trial held in June of 2013 in the DOJ's and States' Actions, Apple was found liable. 952 F. Supp. 2d 639 (S.D.N.Y. 2013) (the "Liability

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<sup>1</sup> Hachette Book Group, Inc., HarperCollins Publishers LLC, Holtzbrinck Publishers LLC d/b/a Macmillan, Penguin Group (USA), Inc. ("Penguin"), and Simon & Schuster, Inc. ("Simon & Shuster") (collectively, "Publisher Defendants").

Opinion"). The States and class are now pursuing damages from Apple; a damages trial is scheduled to occur shortly.

This Opinion is one of two issued today. The other Opinion certifies a class. This Opinion addresses class plaintiffs' and the States' (collectively, "plaintiffs") motions to exclude the opinions of Apple's experts from the trial, as well as from consideration on the class certification motion and pending summary judgment motion.<sup>2</sup>

Apple submits the opinions of two experts, Dr. Joseph Kalt and Mr. Jonathan Orszag. For the reasons set out below, plaintiffs' motions to exclude are granted with respect to Kalt and granted in part with respect to Orszag.

#### **BACKGROUND**

The relevant background facts, as well as the definitions of certain capitalized terms, are set out in today's Opinion deciding class plaintiffs' motion for class certification.<sup>3</sup>

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<sup>2</sup> Today's class certification Opinion grants certification without reaching the admissibility of Kalt's and Orszag's opinions.

<sup>3</sup> There is no dispute that these findings bind the parties in the States Action. The class plaintiffs expect to rely on the doctrine of collateral estoppel and do not intend to retry Apple's liability for violating the antitrust laws. A pending motion for summary judgment is addressed to issues of collateral estoppel. To the extent that this brief summary of the Liability Opinion's findings differs in any way from the

Familiarity with that Opinion, as well as with the Court's Opinion of July 10, 2013 determining liability in the DOJ Action and the States' Action, is assumed.

In brief, the DOJ and the States succeeded in proving at trial that Apple conspired with the Publisher Defendants to raise e-book prices in violation of the Sherman Act. The Publisher Defendants were opposed to Amazon's practice of selling many e-book versions of NYT Bestsellers and New Releases for \$9.99. Apple was aware of that discontent as it made a decision in late 2009 to see if it could add an e-bookstore to its iPad. Apple planned to launch the iPad at a presentation on January 27, 2010 ("Launch"). Apple approached the Publisher Defendants and during the ensuing negotiations presented them with the means to eliminate Amazon's control over the retail pricing of e-books and to raise e-book prices. Through negotiations that lasted less than two months, Apple engineered the transformation of the e-book marketplace from a model in which the Publisher Defendants sold their e-books to retailers at wholesale prices and the retailer set the retail price, to one in which the Publisher Defendants took control of retail pricing and sold to consumers by making Amazon and Apple, among others, their agents.

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findings as set out in the Liability Opinion itself, the Liability Opinion controls.

The power that the Publisher Defendants acquired through the agency agreements, which Apple executed with each of the Publisher Defendants ("Agreements"), and which the Publisher Defendants imposed on Amazon, had an immediate impact on the prices of the Publisher Defendants' e-books. In the period after early April 2010, when Apple began to sell its iPad -- an iPad that launched with Apple's iBookstore -- the prices of the Publisher Defendants' e-books increased dramatically.<sup>4</sup> They essentially increased to the pricing caps that Apple had insisted be included in the Agreements. Apple was fully aware that the Publisher Defendants would use their power over pricing to raise prices significantly and it insisted on pricing caps to restrain those price increases so that Apple would not be embarrassed.

The relevant expert reports were filed in support of and opposition to class plaintiffs' October 11, 2013 motion for class certification. Plaintiff's expert, Dr. Roger Noll, submitted a declaration in support of certification on October 11 and a reply declaration on December 18; Apple's experts, Kalt and Orszag, submitted declarations in opposition to class

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<sup>4</sup> For contractual reasons unique to Penguin, it was unable to execute its agency agreement with Amazon as quickly as the other Publisher Defendants. When it did so later in the Spring of 2010, its e-book prices followed the same path as the other co-defendant publishers.

certification on November 15 and sur-reply declarations on January 21, 2014. On December 18, class plaintiffs moved to exclude Kalt's and Orszag's opinions, both from motion practice and at trial. Also on December 18, the States joined class plaintiffs' motion to exclude Kalt's opinions and filed their own motion to exclude Orszag's. These motions were fully submitted on February 4, 2014.

Today's Opinion granting class certification denied the motion brought by Apple to strike Noll's expert opinion. Because it held that class certification was appropriate whether or not Apple's experts' opinions were admissible, it did not decide whether those opinions should be stricken.

Noll, a Professor Emeritus of Economics at Stanford University and a Senior Fellow in the Stanford Institute for Economic Research, constructed a classic and sophisticated model of e-book pricing to determine the effect of price-fixing on the price of any given e-book published by one of the Publisher Defendants. Noll conducted a multivariate regression analysis on transaction records for more than 149 million sales of 1.3 million different e-book titles. His "competitive benchmark" was given by prices prior to the agency period and prices during the agency period of e-books from smaller publishers as well as from Random House prior to early 2011, when Random House adopted the agency model. Controlling for the effects of an e-book

title's publisher, age, popularity, genre, and the availability of hardcover and paperback editions, Noll determined the effect of collusion on each of 502 combinations of these variables.

For instance, Noll's model calculates that a customer who purchased an e-book of a Penguin hardcover fiction title on the NYT Bestseller list during the agency period paid an overcharge of approximately 29.4%.

Damages calculations for each transaction are straightforward: damages for a given sale are equal to the price paid multiplied by the overcharge for that title's category. In the example above, purchasing the e-book of a Penguin NYT Bestseller for \$14.99 would result in damages of  $\$14.99 \times 29.4\% = \$4.41$ . Subtracting these damages from the actual price reveals the but-for price -- that is, the price a consumer would have paid but for the price-fixing. In the example of the Penguin NYT Bestseller, the but-for price is \$10.58, that is, \$14.99 less \$4.41.

In all but 0.2% of transactions, Noll found that price fixing had resulted in an overcharge, amounting to total damages to consumers of just over \$280 million. Noll's model has an adjusted R<sup>2</sup> of 0.90 -- that is, it explains 90% of the variance in prices among e-book titles.<sup>5</sup>

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<sup>5</sup> This is the adjusted R<sup>2</sup> of Noll's initial model, not his later model that used individual transaction prices rather than four-

Apple has relied on the opinions given by Kalt and Orszag to oppose the class plaintiffs' motions for class certification and for summary judgment. It seeks as well to rely on these opinions at the upcoming damages trial. Neither Orszag nor Kalt, however, conducted their own econometric or statistical analysis of damages. Orszag did, however, re-run Noll's regression analysis using a modified control group and date range.

For the reasons given below, the motion to strike the Kalt's and Orszag's opinions are granted with one exception. Orszag will be permitted to testify regarding his re-running of Noll's regression analysis, assuming that there is an adequate evidentiary basis to support that analysis at trial.

## **DISCUSSION**

### **I. Legal Standard<sup>6</sup>**

Federal Rule of Evidence 702 grants an expert witness testimonial latitude unavailable to other witnesses, provided that (1) "the testimony is based on sufficient facts or data,"

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week averages. The parties have not suggested that the adjusted  $R^2$  of the later model is substantially different, although Apple's experts have re-run both of Noll's regressions and calculated related  $R^2$  statistics for both models.

<sup>6</sup> This description of the legal standard is identical to the one given in today's class certification Opinion, but is repeated here for ease of reference.

(2) "the testimony is the product of reliable principles and methods," and (3) "the expert has reliably applied the principles and methods to the facts of the case." Fed. R. Evid. 702. "[T]he proponent of expert testimony has the burden of establishing by a preponderance of the evidence that the admissibility requirements of Rule 702 are satisfied." United States v. Williams, 506 F.3d 151, 160 (2d Cir. 2007). The district court performs the role of "gatekeeper" -- ensuring that the proponent has made the necessary showing and that the expert's testimony "both rests on a reliable foundation and is relevant to the task at hand." Daubert v. Merrell Dow Pharm., Inc., 509 U.S. 579, 597 (1993).

In order to be admissible, "[a]n expert opinion requires some explanation as to how the expert came to his conclusion and what methodologies or evidence substantiate that conclusion." Riegel v. Medtronic, Inc., 451 F.3d 104, 127 (2d Cir. 2006), aff'd on other grounds, 552 U.S. 312 (2008). An explanation is necessary because "when an expert opinion is based on data, a methodology, or studies that are simply inadequate to support the conclusions reached, Daubert and Rule 702 mandate the exclusion of that unreliable opinion testimony." Ruggiero v. Warner-Lambert Co., 424 F.3d 249, 255 (2d Cir. 2005) (citation omitted).

While a district court has “broad latitude” in deciding both “how to determine reliability” and in reaching “its ultimate reliability determination,” it may not abandon this “gatekeeping function.” Williams, 506 F.3d at 160–61 (citation omitted). “[N]othing in either Daubert or the Federal Rules of Evidence requires a district court to admit opinion evidence that is connected to existing data only by the ipse dixit of the expert.” Kumho Tire Co. v. Carmichael, 526 U.S. 137, 157 (1999) (citation omitted).

“[A] trial judge should exclude expert testimony if it is speculative or conjectural or based on assumptions that are so unrealistic and contradictory as to suggest bad faith.” Zerega Ave. Realty Corp. v. Hornbeck Offshore Transp., LLC, 571 F.3d 206, 213–14 (2d Cir. 2009) (citation omitted). “Other contentions that the assumptions are unfounded go to the weight, not the admissibility, of the testimony.” Id. (citation omitted). “A minor flaw in an expert’s reasoning or a slight modification of an otherwise reliable method” does not itself require exclusion; exclusion is only warranted “if the flaw is large enough that the expert lacks good grounds for his or her conclusions.” Amorgianos v. Nat’l R.R. Passenger Corp., 303 F.3d 256, 267 (2d Cir. 2002) (citation omitted). This is because “our adversary system provides the necessary tools for challenging reliable, albeit debatable, expert testimony.” Id.

"Vigorous cross-examination, presentation of contrary evidence, and careful instruction on the burden of proof are the traditional and appropriate means of attacking shaky but admissible evidence." Id. (quoting Daubert, 509 U.S. at 596).

The Daubert inquiry is "flexible" and "gives the district court the discretion needed to ensure that the courtroom door remains closed to junk science . . . ." Id. And it is "critical that an expert's analysis be reliable at every step," for "any step that renders the analysis unreliable" renders the expert's testimony inadmissible. Id. (citation omitted).

## **II. Motion to Exclude Kalt's Opinions**

Joseph P. Kalt is the Ford Foundation Professor Emeritus of International Political Economy at the John F. Kennedy School of Government at Harvard University and a senior economist at the economic consulting firm Compass Lexecon. Kalt holds a B.A. in Economics from Stanford University and a Ph.D. in Economics from the University of California, Los Angeles.<sup>7</sup>

Kalt offers three principal criticisms of Noll's model. First, Kalt argues Noll's model is unreliable because (a) book

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<sup>7</sup> Plaintiffs complain that despite his frequent appearance as an expert, Kalt has "never concluded in testimony or an expert report that a plaintiff can show impact or damages through common proof, despite addressing that issue in numerous cases." Were Kalt's opinions not excluded, plaintiffs would be permitted to explore that pattern, and its implied bias, through cross-examination. This Opinion does not rely upon plaintiffs' charge as a ground for excluding Kalt's opinions.

prices exhibit “churning” and “dispersion” that aren’t explained by Noll’s model; (b) Noll uses four-week average prices<sup>8</sup> and broad genre categories; and (c) the prices of many e-book titles did not rise with the introduction of the agency model, and Noll’s damages model indicates that these prices would have fallen (or fallen more) absent the conspiracy. Second, Kalt charges that Noll’s model assumes common injury rather than proving it. And third, Kalt states that Noll’s model ignores certain features of the but-for world, and accordingly (a) fails to include discounts for benefits consumers may have received, including lower e-reader prices and the increased availability of self-published and free e-books, and (b) wrongly assumes that e-book purchases through the iBookstore and Barnes & Noble would have all occurred in the but-for world through other e-retailers (“e-tailers”).

Plaintiffs seek to exclude all of Kalt’s opinions, arguing that they are based on five unreliable “subsidiary opinions”:

- (A) Kalt’s finding that 60% of e-book sales in the first month after the agency model was adopted were at or below pre-agency prices;
- (B) Kalt’s opinion that e-book pricing exhibits no pricing structure, but rather substantial “churning” and “dispersion”;

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<sup>8</sup> This criticism was levelled at Noll’s initial model, which used four-week average prices for titles rather than individual transaction prices.

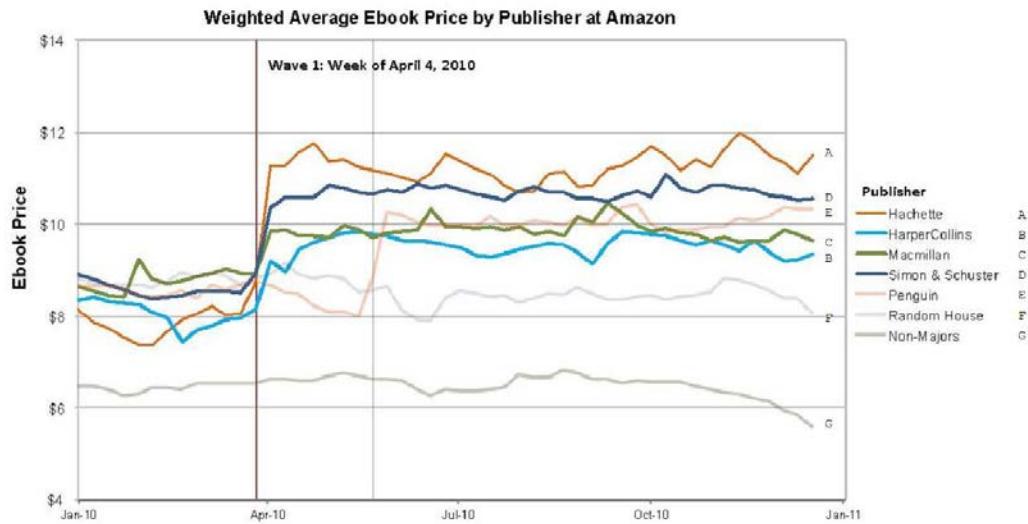
- (C) Kalt's opinion that Noll's omission of a variable capturing "buzz" about a title undermines the reliability of Noll's model, as does the breadth of Noll's genre categories;
- (D) Kalt's opinion that actual prices were below but-for prices in more than 10 million transactions; and
- (E) Kalt's affirmation of Orszag's opinions related to offsets.

For the reasons set out below, Kalt's opinions are excluded in their entirety.

**A. Kalt's Analysis of Post-Agency E-Book Sales At Pre-Agency Prices**

Kalt opines that the shift by the Publisher Defendants to agency agreements with their e-tailers "demonstrably resulted in large numbers of titles' prices declining." This opinion is unexpected given that a different Apple expert at the liability trial gave completely contrary testimony.

At trial, Apple offered evidence of a dramatic and uniform increase in the prices of the Publisher Defendants' e-books right after they were able to take control of retail prices. The following graph, offered by Apple at trial, demonstrates this effect as it played out at Amazon. It was based on a comprehensive analysis of detailed transaction records undertaken by Apple's expert.



Liability Opinion, 952 F. Supp. 2d at 682.

As can be seen from the graph, there is one anomaly. In what is labelled in the graph as "wave 1," the e-book prices for four of the five Publisher Defendants rose, sharply, in unison the week of April 4. This coincided with the sale of the iPad with an iBookstore. The sudden upturn in the prices of Penguin's e-books, however, lagged behind the upturn in the other Publisher Defendants' e-book prices since Penguin's contract with Amazon did not permit it to take full advantage of the agency model until a few weeks later. Id. A second vertical line marks the steep rise in the Penguin prices at Amazon, as it was able to take total control of the retail prices for its e-books at that distributor.

Despite this graphic illustration of the rise of the Publisher Defendants' e-book prices as they moved to the agency

model, Kalt opines that approximately 60% of e-books sold (by volume) in the month following the move to agency were sold at or even below pre-agency prices.<sup>9</sup> The reason for variance in the opinions offered by Apple's experts is not difficult to explain. Kalt made a fundamental error that fatally undermines his analysis: he chose to mislabel a significant number of "post-agency" prices as "pre-agency" prices.

Kalt made this error by identifying all prices charged before the date a publisher's last e-tailer moved to the agency model as "pre-agency." Thus, Kalt classifies prices which were indisputably set by the publisher, under the terms of an agency agreement, as "pre-agency prices," so long as one e-tailer was still selling the same books under a wholesale model. Kalt thereby misclassified hundreds of thousands of prices set by Penguin.<sup>10</sup>

Penguin did not execute an agency agreement with Amazon until June 2, 2010, and began withholding newly released e-books

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<sup>9</sup> The Opinion issued today that grants class certification includes a reference to Kalt's statistics as they were described in Apple's brief in opposition to the class certification motion. In that brief, Apple describes Kalt's opinion as "over 50% of the Publisher Defendants' e-book titles' prices decreased or stayed the same after the switch to agency."

<sup>10</sup> This same type of error affected Kalt's initial analysis of Simon & Schuster e-books. Because the description of the error in connection with Penguin e-books is sufficient to elucidate the problem, it is unnecessary to also describe the problem with the analysis of the Simon & Schuster sales.

from Amazon as of April 1 (the "withheld titles"). Liability Opinion, 952 F. Supp. 2d at 682. In his initial analysis, Kalt classified the price for every Penguin e-book sold through the iBookstore in April and May 2010, and sold on Barnes & Noble's Nook Book Store during that same period, as a pre-agency price even though Penguin had executed agency agreements with those retailers, Penguin was setting the retail prices for those e-books, and Apple and Barnes & Noble were acting as Penguin's agents. Between April 3 and May 28, Kalt concedes that Penguin released fewer than 20% of its new e-books to Amazon and Amazon was largely confined to selling Penguin e-books that had been released on or before March 31 under the wholesale model.

Kalt has admitted that his initial analysis was flawed. He has admitted that he overlooked the fact that the titles withheld by Penguin were only available for sale under agency agreements after April 3. But his revised analysis continues to treat prices for all other Penguin books, including those sold under agency agreements by Apple and Barnes & Noble, as "pre-agency prices" through May 28, since Amazon continued to purchase them from Penguin under the wholesale model.

Kalt fails to justify this gross misclassification. He asserts that, in the abstract, "basic economics . . . teaches that if a single retailer continues to have pricing authority over a Publisher Defendant's titles, . . . then that retailer's

pricing decisions would discipline the pricing of that publisher's titles in the marketplace." But, Amazon's ability to impose any discipline was eviscerated by Penguin's decision to largely withhold new e-books from Amazon.

An analysis by Dr. Orley C. Ashenfelter offered during the liability trial and referenced by Noll confirms that e-book prices moved just as the conspirators intended. Ashenfelter found that in April and May 2010, more than 96% of Penguin e-books were priced higher at the iBookstore and Barnes & Noble (under the agency model) than at Amazon (under the wholesale model), with an average price difference between \$1.67 and \$2.00. Kalt does not dispute the accuracy of this analysis.<sup>11</sup> Rather, he simply claims that this is not "dispositive" of the

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<sup>11</sup> Kalt makes a brief reference in his sur-reply report to the existence of "MFN provisions in Apple's agency agreements with retailers." As described in the Liability Opinion, 952 F. Supp. 2d at 662-63, under the Most-Favored-Nation clause that Apple insisted be included in its Agreements with the Publisher Defendants, the Publisher Defendants were essentially forced to move all of their e-tailers to an agency model and Apple was protected against any retail price competition. But, Kalt brings no expert analysis to bear on the effect of the MFN on retail pricing. And, as already described, he does not dispute the accuracy of Ashenfelter's study of retail pricing during the weeks before Penguin took control of that pricing from Amazon. Thus, whatever the impact of the MFN over time, it did not prevent Penguin from raising the prices for its e-books at Apple and Barnes & Noble as it waited for its agency agreement with Amazon to take effect. The bottom line remains that there is no sound basis for Kalt to label an e-book sold pursuant to an agency agreement a "pre-agency" transaction.

issue and that further study would be required. Kalt did not, however, conduct any further study.

There can be little dispute that Kalt's misclassification of these Penguin prices had a tremendous effect on his results, as Kalt himself admits. Kalt calculates the effect of moving the pre-agency date back from May 27 to March 31 for the Penguin titles not withheld from Amazon. While Kalt's analysis, with the improper May 27 date, indicates that 61% of e-books (by unit sales) saw no price increase, a March 31 date lowers that figure to 26%.

Accordingly, Kalt's decision to classify sales of Penguin e-books through Apple and Barnes & Noble under the agency model as "pre-agency," despite undisputed evidence that 96% of Penguin e-book prices at the iBookstore and Barnes & Noble were higher than competing wholesale prices set by Amazon, renders his analysis not just unreliable but also misleading.

Moreover, Kalt's analysis fails to account in any way for titles with prices one would expect to decrease for independent reasons, like the introduction of a paperback edition or aging out of the New Release or frontlist categories.<sup>12</sup> Kalt notes this criticism in his sur-reply and does not dispute its force;

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<sup>12</sup> A New Release, as defined by Amazon, is a book published within the last 90 days; a frontlist book is one sold within a year of its publication.

he simply reports that he repeated his standard analysis -- the one grossly misclassifying Penguin titles -- by excluding e-books which saw the introduction of a paperback edition, and continued to find that more than 60% of transactions saw no price increase. This single result, which addresses only one of the independent drivers of price decreases and which remains tainted by the use of the wrong agency date for the Penguin titles, does not adequately address Kalt's methodological flaw.<sup>13</sup>

Because Kalt's analysis is based on demonstrably false assumptions regarding the agency date for Penguin's withheld titles and fails to control for other expected causes of price decreases, it is inadmissible. See Wills v. Amerada Hess Corp., 379 F.3d 32, 50 (2d Cir. 2004) (affirming exclusion of proposed expert testimony where expert failed to account for independent variables that may have also led to the reported result).

Use of this analysis before a jury is also barred by Rule 403, Fed. R. Evid. Its flaws are so fundamental that any probative value is substantially outweighed by the danger that it will confuse and mislead the jury and cause unfair prejudice

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<sup>13</sup> Note that Kalt's repetition of his flawed analysis was not considered in connection with the class certification Opinion, as it was untimely. It did not respond to a new opinion by Noll that could not have been anticipated by Kalt. It is only addressed here to explain why consideration of this analysis would not save Kalt's opinion from exclusion at summary judgment and at trial.

to the plaintiffs. See Daubert, 509 U.S. at 595 ("Expert evidence can be both powerful and quite misleading because of the difficulty in evaluating it. Because of this risk, the judge in weighing possible prejudice against probative force under Rule 403 . . . exercises more control over experts than over lay witnesses." (citation omitted)); United States v. Kwong, 69 F.3d 663, 668 (2d Cir. 1995) (affirming exclusion of evidence that might pass muster under Rule 702 pursuant to Rule 403); accord United States v. Cruz, 363 F.3d 187, 194 (2d Cir. 2004) (approving of the exclusion of expert testimony under Rules 702 or 403 when an expert "strays from the scope of his expertise" or is "no longer applying his extensive experience and a reliable methodology" (citation omitted)).

#### **B. No Standard, Stable E-Book "Pricing Structure"**

Plaintiffs next challenge Kalt's opinion that "there is no standard, stable e-book 'pricing structure,'" an opinion based on Kalt's findings of "pervasive dispersion and 'churning'" among e-book prices. Dispersion refers to variance among prices, both for a given e-book title and across all e-book titles; churning is defined as "more or less continuous and tumultuous changes in [e-books'] prices relative to one another." Because this analysis is unreliable and would tend to mislead and confuse a jury, it is excluded.

Before turning to the errors in Kalt's analysis which require its exclusion, it is useful to place it in context. Kalt undertakes his analysis of churning and dispersion in order to undermine Noll's calculation of damages without directly engaging with Noll's regression model. Even though Noll identifies the critical variables that might affect pricing, and his regression model produces 502 separate categories into which the Publisher Defendants' e-books fall, Kalt argues that the model is simply unable to account for the dispersion and churning of prices that regularly occur.

But, the evidence at the liability trial, which was undisputed, showed a remarkable uniformity in the movement of the prices of the Publisher Defendants' e-books. One such graph is incorporated above, in connection with the discussion of Kalt's error in identifying pre-agency pricing. There is an abundance of additional statistical evidence confirming the striking stability in pricing. In the five months that followed the shift to the agency model in April 2010, the Publisher Defendants collectively priced 85.7% of their New Release titles sold through Amazon and 92.1% of their New Release titles sold through Apple within 1% of the price caps. Liability Opinion, 952 F. Supp. 2d at 682. This was also true for 99.4% of the NYT Bestseller titles on Apple's iBookstore, and 96.8% of NYT Bestsellers sold through Amazon. Id. The increases at Amazon

within roughly two weeks of moving to agency amounted to an average per unit e-book retail price increase of 14.2% for their New Releases, 42.7% for their NYT Bestsellers, and 18.6% across all of the Publisher Defendants' e-books. Id.

This regularity in the pricing structure for the Publisher Defendants' e-books is not surprising. With the adoption of the agency model, a single publisher controlled the retail pricing of its e-books across all retailers. Adding to the stability of the marketplace, as the publisher-witnesses explained at trial, the major publishers do not compete with each other on price; they compete for authors and agents and in other ways. Thus, it was not surprising that so many of the e-books were priced by each of the Publisher Defendants at or very near the price caps that Apple imposed upon them through the Agreements. After all, the Publisher Defendants entered this conspiracy to raise e-book prices and raise those prices they did.

Against this backdrop, Kalt has tried to create the impression of a disordered marketplace with so much churning and dispersion that no model, even one as rigorous as the one Noll has created, can be relied upon to calculate the damages attributable to the price-fixing scheme fairly. But, Apple has not pointed to any literature within the field of econometrics, or within the field of statistics more generally, that uses a study of churning and dispersion like the ones conducted by Kalt

as a critique of a multivariate regression analysis capable of explaining 90% of the variance in prices among e-book titles.<sup>14</sup>

In any event, the plaintiffs do not have the burden of showing that all e-book prices behaved in just the same way. It was the goal of the conspiracy to raise e-book prices. Neither Apple nor its experts deny that the Publisher Defendants raised the prices of many e-book titles. The plaintiffs have provided a reliable basis to find that the class sustained widespread damages from prices raised by the conspirators above but-for

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<sup>14</sup> Apple's only citation is to an essay published in the ABA's Section of Antitrust Law's Economics Committee Newsletter authored by two other consultants at Compass Lexecon, the expert consulting firm that employs both Kalt and Orszag. Andrew Y. Lemon & Steven R. Peterson, "Using Economics to Identify Common Impact in Antitrust Class Certification," Economics Committee Newsletter (ABA Section of Antitrust Law), Spring 2011, at 3-6. Kalt cites to a similar article published by these authors. Steven R. Peterson & Andrew Y. Lemon, "Rigorous Analysis to Bridge the Inference Gap in Class Certification," 7 Journal of Competition Law & Econ. 93 (2010). In these writings, Peterson and Lemon propose grounds for denying class certification in antitrust actions in all but a few "special cases." Id. at 105.

It is unnecessary to engage with the merits of the Peterson/Lemon thesis since their economic analysis is not applicable here. Peterson and Lemon simply note that, where actual prices overlap with but-for prices and there is no reliable way to match a given actual price with a given but-for price, it may be impossible to calculate an individual's damages with certainty on a class-wide basis. Here, where Noll's model calculates an overcharge for each of 502 different categories of e-books, and a but-for price is determined by multiplying the appropriate overcharge by the actual transaction price paid by an individual class member, plaintiffs have presented a reliable method of matching actual prices with but-for prices and determining individual damages.

prices, and for calculating individual damages. Kalt's analysis does not suggest otherwise.

Of course, even if Kalt's study does not provide a legitimate basis for rejecting Noll's work, the issue remains whether it may be admitted at trial to create a general impression that Noll's work may be unreliable, or that Noll has attempted to accomplish the impossible in a marketplace characterized by chaotic pricing. But, as will be seen, to create an appearance of dispersion and churning, Kalt has ignored the evidence described above, relied on unreasonable assumptions unmoored to the record evidence or directly contradicted by it, and avoided rigorous analysis.

#### **1. Inability to Identify the Date on Which Prices Change**

The fundamental problem with Kalt's "churning" analysis, which purports to show random daily and weekly price movements, is that the data Kalt uses do not reliably establish the date on which the seller of the e-book (the publisher under the agency model, the e-tailer under the wholesale model) changed the price of the e-book. Kalt analyzes transaction records, which give the price on the date the consumer purchases the e-book.<sup>15</sup> When a transaction record reports a price different from the price on

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<sup>15</sup> Plaintiffs' expert, Noll, also uses transaction records. Unlike Kalt, however, Noll does not proffer analyses based on price changes on a given day or week.

the last transaction record for a given title, one can infer only that the seller changed the price at some time between the date of the two transactions. But, Kalt assumes without basis that the seller changed the price of the e-book title on the date of the latter transaction, and that this new price continued until the next transaction showing a different price. This assumption might not be of great concern if most titles were purchased daily, but that is not the case. As Kalt admits, purchases of the vast majority of e-book titles are extremely infrequent: he reports that 96% of e-book titles sell, on average, one unit every two weeks.<sup>16</sup> Thus, price changes for a given title may appear to occur, for purposes of Kalt's analysis, some number of days or weeks after the seller sets a new price for the title.<sup>17</sup>

This uncertainty presents a tremendous obstacle to any analysis of price changes over periods of time shorter than

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<sup>16</sup> Kalt reports that 96% of e-books sell approximately 25 units a year. Plaintiffs appear to interpret Kalt to be referring to sales over the lifetime of an e-book, rather than yearly sales; if plaintiffs are correct, sales are even less frequent than once every two weeks.

<sup>17</sup> It is not clear whether the transaction records from any or all of the e-tailers differentiate between a promotional price (which may be offered to a small subset of shoppers) and a general offer price. Kalt does not indicate that he was able to distinguish between promotional and ordinary prices. Given the small number of transactions for each title, occasional purchases at promotional rates may generate the appearance of substantial price volatility.

several weeks. Even if a seller simultaneously changed the prices for an entire category of e-books, the lag between the price change and the next purchase of each e-book would cause the prices of the e-book titles in the category to appear to move days or weeks apart. Kalt's own graphs demonstrate the issue: in Figure 14A, he graphs the percentage of titles with an increase or decrease in their daily modal prices<sup>18</sup> across the period; in Figure 14B, he does the same for changes to weekly modal prices. While Figure 14A suggests hardly any coordinated price movement, Figure 14B suggests far more. A graph showing changes to monthly prices might well show a great deal more.

When asked to address this problem at his deposition, Kalt essentially demurred. He insisted that prices are irrelevant until reflected in a transaction, as before that it is "not a real price that anyone is buying [at]" and therefore is "not in the market." Although that might be true in certain contexts, for instance when a pedestrian is haggling over the price of a book at a Central Park bookstall, it is not true here. Kalt is supposedly investigating whether e-books are priced in an orderly manner, and to do so reliably he must measure the prices

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<sup>18</sup> The modal price is the most frequent price charged over a given period of time. For example, on a day where a given e-book was sold for \$14.99, \$14.98, \$14.95, \$3.99, and \$3.99, the daily modal price would be \$3.99.

as they are actually set by e-book sellers. This he has not done.

Kalt's error is exacerbated by his failure to distinguish among sellers. Where different sellers charge different prices for a given e-book title, purchases distributed among those sellers will create the appearance of price volatility, even if each seller keeps its list price constant.

A simple hypothetical demonstrates Kalt's error. Imagine that all e-tailers always charged the same price for a given title, only changed prices on the first of each month, and each month changed all titles' prices by the same percentage.

Despite this incredibly ordered pricing structure, in which changes to e-books' prices are perfectly correlated with one another, because of the infrequency in sales, Kalt's analysis may well show little correlation and tremendous churning.

Kalt's method would register the price changes as occurring on the date of the first purchase of title each month, even though many titles would not be bought for days or weeks after the monthly price adjustment. Kalt's analysis would be not only inaccurate but very misleading.

Thus, Kalt's opinions about daily and weekly price movements are based on data that cannot reliably establish daily or even weekly prices for particular titles, and in fact would tend to inflate apparent price volatility and churning. Rather

than constructing a methodology that properly addresses this issue -- say, by testing probable error rates based on the frequency of transactions and measuring churning based on an appropriately lengthy time period -- Kalt dismisses it. These analyses must be excluded under both Rule 702 and Rule 403.

## **2. Failure to Use Controls**

In addition, Kalt's dispersion and churning analysis fails to support his opinions because it fails to control for systematic factors affecting prices. Some of his "analyses" simply chart the price at which titles were sold over time.<sup>19</sup> Others measure correlation among titles' price changes. Although Noll has controlled for many factors expected to affect e-book pricing -- a title's publisher, genre, popularity, age, and the availability of hardback and paperback editions -- Kalt's graphs account for none of these. They do not represent a professional economist's final analysis of pricing structures, as such analysis requires an attempt to account for "measurable and systematic factors" affecting prices. ABA Section of Antitrust Law, Econometrics: Legal, Practical, and Technical Issues, 210-11 (2005). Thus, they provide little basis for

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<sup>19</sup> Kalt refers to Figures 12A-F and 13A-F in his discussion of churning, but because the same methodological problem afflicts Figures 9-13, they are treated together.

reliable inferences regarding e-books' pricing structures or for commentary on Noll's modeling of such structures.

In his sur-reply, Kalt offers two revised graphs, in which he purports to "normalize" prices to account for Noll's explanatory variables, including title-specific indicator variables. But, these graphs simply chart residuals from Noll's regression. Noll's regression model explains 90% of the variance among e-books' pricing; Kalt has graphed the remaining 10% of variance. Kalt does not explain how these results are meaningful. As any regression on real data will have residuals, it is not clear how such results could demonstrate a good fit between the model and the data as opposed to a poor one. These revised graphs do not cure the blatant deficiencies in Kalt's original charts, reflect no accepted scientific methodology, and would, if admitted at trial, create a serious risk of misleading the jury.

Because Kalt's analysis of price movements is based on data that does not reliably establish the date of price changes, and because Kalt does not control for systematic factors affecting prices, Kalt's analyses are unreliable and likely to mislead and confuse a jury. Thus Kalt's dispersion and churning analyses must be excluded for this reason as well.

### **3. Correlation Analyses**

Kalt also presents a correlation analysis as a subset of his churning analyses. The correlation analysis purports to measure the frequency with which the daily and weekly modal prices of pairs of e-books published the same week in the pre-agency period moved in the same direction. Even if Kalt's churning analyses were generally admissible -- and they are not -- it would be necessary to strike Kalt's correlation analysis.

A correlation analysis must, according to its own terms, exclude all titles with prices that did not change, that is, those with perfectly stable pricing. This limitation biases the results against a finding of stability. Kalt admits that, if he were to include titles with perfectly stable pricing, the percentage of title-pairs with a positive correlation of 0.8 or higher, which is a "very strong [correlation] and of great practical importance," would increase to approximately 39%.

Accordingly, Kalt's correlation analysis, which he offers to support a finding of chaotic pricing, is ill-suited to this task. The correlation analysis must be stricken for this reason under Rule 702, on the ground that it is not a reliable scientific measurement of the extent to which e-book pricing is structured, and under Rule 403 for its substantial risk of misleading the jury while offering little useful information.

**C. "Buzz" and Genre Definitions**

Plaintiffs also move to exclude Kalt's opinion that Noll's model is flawed because Noll fails to include a variable for "buzz" and because Noll's genre categories are too broad. Kalt has undertaken no analysis to confirm that either criticism has any validity. Because these opinions are unsupported by any rigorous analysis and are purely speculative, they are excluded.

Kalt charges that Noll fails to include in his model "authors' growing or shrinking reputations, the appearance of good or bad reviews, events such as a movie release of the title, so-called 'buzz' and 'word-of-mouth' effects, celebrity, expert or other endorsements, and real-time advertising and other marketing efforts by retailers, authors and/or publishers." There are at least three problems with allowing Kalt to render this naked opinion.

First, Kalt offers no reason to believe that one could reliably measure a title's "buzz" for the purposes of a multivariate regression analysis. Moreover, as significantly, Noll's regression does capture effects that are specific to an individual title, as it includes an indicator variable for every e-book title. Noll's indicator variable is not perfect, as it must average these effects over time, but it allows his model to account for the idiosyncratic pricing influences on each title. Finally, Kalt offers no reason to believe that Noll's use of an

indicator variable is inadequate to capture a title's idiosyncratic "buzz" or that the insertion of a separate variable for "buzz" would improve Noll's model. Because Kalt has performed no analysis to support his opinion regarding "buzz," he may not offer such testimony.

Similarly, Kalt accuses Noll of adopting genre categories that are so "highly aggregated," with "extreme heterogeneity" within each genre category, that "many hundreds of titles . . . are too diverse to reasonably be expected to share pricing behavior," including a common relative overcharge as the result of price-fixing. Of course, an e-book title's genre is only one of the variables that Noll uses in his model. In any event, Noll largely adopted the genre categories from the New York Times bestseller lists. His genre distinctions help to generate 720 possible categories for the Publisher Defendants' e-books. These categories are so narrowly drawn that no e-book was sold in 218 of the categories.

Apple may, of course, cross-examine Noll regarding his decision to rely on that particular system of categories, as opposed to any other. But, it does not need Kalt in order to do so. In order for Kalt to advance his own opinion about the impact of Noll's choice of genre categories in a damages calculation, Kalt would be required to perform some economic analysis. He has not. After all, Kalt is being tendered by

Apple as an expert in various disciplines within the field of economics. He has no special expertise in publishing. To be of assistance to the jury, he would have to bring his own expertise as an economist to bear on a subject.

Kalt does refer to a chart showing Amazon's more narrowly drawn genre categories, and a chart showing that titles within a genre category have a wide range of different price points. Again, these charts may provide fertile ground for cross-examination of Noll, but standing alone they do little more than present a collection of facts in a pseudo-scientific way. Kalt has done no analysis to permit him to opine as an expert economist about the impact of more fine-grained genre categories on Noll's model or on any reliable calculation of damages. Without any economic analysis to give meaning to data, Kalt's offer of these charts would be of no assistance to the jury.

See Rosen v. Ciba-Geigy Corp., 78 F.3d 316, 318 (7th Cir. 1996) (Posner, J.) ("Under the regime of Daubert, a district judge asked to admit scientific evidence must determine whether the evidence is genuinely scientific, as distinct from being unscientific speculation offered by a genuine scientist.").

Throughout his report, Kalt asserts that Noll improperly assumes, rather than proves, that e-book titles within one of Noll's 502 categories suffered the same relative common impact. It is for this purpose that Kalt has speculated that "buzz"

might affect a title, or that a more narrowly drawn book genre may have unique pricing characteristics. Noll's hedonic pricing model disaggregates the major quantifiable factors that might influence e-book pricing -- publisher, genre, bestseller status, age, and the availability of a hardcover or paperback edition -- and then controls for these factors to compare competitive prices against collusive prices. Noll's regression analysis assumes that, if all other variables are equal, the relative effect of collusion will be the same. So long as Noll has captured the salient characteristics for pricing purposes, this assumption is wholly proper. Kalt has not offered reliable evidence to support an opinion to the contrary.

#### **D. Actual Prices Below But-For Prices**

Plaintiffs next attack Kalt's opinion that Noll's model produces millions of "false positives," based on an analysis purporting to show that millions of transactions occurred at prices below Noll's predicted but-for prices. In fact, Kalt's analysis compares average but-for prices to actual prices, and so only confirms that titles were sold at more than one price over the period. Thus this analysis cannot aid the trier of fact in determining any relevant issues and must be excluded as irrelevant and misleading.<sup>20</sup>

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<sup>20</sup> The discussion that follows is also contained in today's Opinion certifying a class.

Although Noll's model was not intended to be used in this way, the model can be made to produce an estimated average but-for price of an e-book in a given four-week period. Noll's goal was to calculate the percentage elevation in prices due to price collusion for each e-book. By focusing on the level of prices, rather than the changes in prices attributable to collusion, however, Kalt misidentifies transactions as being unaffected by price collusion.

Noll provides a simple example to demonstrate the error. Assume the standard price for an e-book is \$20 before collusion (the "competitive price") and \$24 after, with the \$4 increase a result of price-fixing. Assume also that in both periods one-third of customers pay the standard price; one-third receive a 25% discount; and one-third receive a 50% discount. Thus, consumers would pay the following:

	<u>Competitive</u>	<u>Collusion</u>	<u>Overcharge</u>
No discount:	\$20	\$24	\$4
25% discount:	\$15	\$18	\$3
50% discount:	\$10	\$12	\$2

As the model's predicted price is the average price, the model predicts a competitive price of \$15 and a collusive price of \$18.

Kalt's test, which simply compares the actual transaction price (i.e., the actual collusive price) to the predicted

(average) competitive price, would flag as a "false positive" the transaction where consumers received a 50% discount, since the actual price they paid (\$12) is less than the average competitive price (\$15). But as this example presupposes, these consumers were damaged, by \$2 -- in the absence of price fixing, they would have paid \$2 less than \$12. Although Noll's model would properly estimate damages of \$4, \$3, or \$2 in this case (depending on the discount received), Kalt would mistakenly find one-third of these results to be "false positives."

Accordingly, Kalt's opinions regarding "false positives" are excluded.

#### **E. Offsets**

Finally, plaintiffs move to exclude Kalt's opinions concerning offsets for certain supposed pro-competitive effects of the price-fixing. In particular, Kalt opines that "it is likely that substantial numbers of class members would not have purchased e-books in the damages period but-for the launching of the iBookstore"; that an unknown number of self-published e-books would not have been published but-for the iBookstore; and that e-book buyers who purchased an e-reader during the damages period were benefitted by lower e-reader prices resulting from the price-fixing conspiracy. For the reasons set forth below in the discussion of Orszag's offset opinions and in the Opinion granting class certification, Apple is barred from

proposing these offsets to any damages calculation. Moreover, just like Orszag's slightly more developed offset opinions, Kalt's opinions are based on guesswork rather than analysis and fail to meet professional standards.

Thus each of Kalt's major opinions must be excluded. Apple has not argued, nor has it established, that the remaining interstitial opinions would aid the trier of fact. Accordingly, Kalt's opinions are excluded in their entirety.

### **III. Motions to Exclude Orszag's Opinions**

Apple's second expert is Jonathan Orszag, a Senior Managing Director at Compass Lexecon. Orszag holds an A.B. in economics from Princeton University and an M.Sc. in Economics and Social History from Oxford University, and has served as Assistant to the Secretary and Director of the Office of Policy and Strategic Planning, U.S. Department of Commerce (1999-2000), and Economic Policy Advisor to the National Economic Council (1997-1999).

Orszag raises two chief objections to Noll's damages model. First, he argues that Noll used an inappropriate control group. Orszag believes Noll was wrong to include e-book publishers beyond the Big Six, many of which are small specialty publishers or self-publishers, and wrong to include time periods much in advance of the conspiracy as they differ substantially from the remainder of the period.

Second, Orszag amplifies Kalt's criticism that the model fails to account for certain features of the but-for world. Specifically, he claims that in his calculation of a final damages figure Noll failed to account for benefits that consumers received due to the price-fixing conspiracy. These include lower e-reader prices, more free e-books and self-published books, and sales that would not have otherwise occurred without the iBookstore or the Barnes & Noble Nook Book Store. Orszag opines that the damages owed to class were, conservatively, not more than \$30 million.

Class Plaintiffs move to exclude all of Orszag's opinions, which they classify as follows:

- (1) but for the conspiracy, Amazon would have lowered e-reader prices less than it did;
- (2) the price-fixing conspiracy increased the availability of self-published and free e-books;
- (3) some e-books purchased through the iBookstore and Barnes & Noble's Nook Book Store would not have been purchased in the but-for world; and
- (4) Noll's regression analysis improperly included publishers outside the Big Six in the control group, and used data from too long a period.

The States move to exclude all but the fourth opinion. For the reasons set out below, the first three opinions are excluded from consideration in connection with any summary judgment motion and at trial, but not the fourth.

**A. Apple Is Barred from Arguing the Price-Fixing Conspiracy Had Pro-Competitive Benefits.**

Orszag's first three opinions, which concern offsets, are irrelevant as a matter of law. At trial, the DOJ and States showed both that Apple's price-fixing conspiracy was a per se violation of the antitrust laws and that they were entitled to judgment under the rule of reason test. At that trial, Apple failed to show that "the execution of the Agreements had any pro-competitive effects." Liability Opinion, 952 F. Supp. 2d at 694. The Court found that "[t]he pro-competitive effects to which Apple has pointed, including its launch of the iBookstore, the technical novelties of the iPad, and the evolution of digital publishing more generally, are phenomena that are independent of the Agreements and therefore do not demonstrate any pro-competitive effects flowing from the Agreements." Id.

Even if Apple were not estopped from challenging those findings with respect to the class action, no such offsets from a properly calculated damages figure would be appropriate as a matter of law. As explained in the Opinion filed today certifying a class, damages will be calculated by a formula that multiplies the relevant relative overcharges by the actual transaction prices paid by class members for the Publisher Defendants' e-books. Apple may not seek to reduce that amount of damages by resort to phenomena outside those transactions or

by speculation over how the world may have been different if it had not chosen to engage in a scheme to fix e-book prices. This includes the theory on which Orszag places special emphasis, that is, that Amazon would have cut the prices of its Kindles less but for the conspiracy. Not only is such an offset barred as divorced from the transactions at issue, for the reasons set out in the class certification Opinion, but it would also be particularly inappropriate to consider this supposed effect since it concerns a different market entirely. Apple cites no case where an antitrust defendant has been granted an offset to damages flowing from price-fixing in one market by alleged benefits in another market, even a market for a complementary good. Cf. United States v. Phil. Nat'l Bank, 374 U.S. 321, 370 (1963) (rejecting proposition that "anticompetitive effects in one market could be justified by procompetitive consequences in another"); United States v. Topco Assoc., Inc., 405 U.S. 596, 610 (1972) (same).

Accordingly, Apple's proposed offsets for speculative happenings in the but-for world are barred. These include an offset for some roughly calculated portion of the reduction in price of Amazon's Kindle;<sup>21</sup> an offset for the competition between

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<sup>21</sup> Orszag also speculates that Amazon may even have raised e-book prices but for the conspiracy. This is so far-fetched, given the record at trial, that it would have been particularly

Amazon and the iBookstore which may have led to more self-published and free e-books; and an offset for an indeterminate number of e-books purchased through the iBookstore and Barnes & Noble's Nook Book Store that may not have been purchased in the but-for world, because the iBookstore would not have launched and the Nook Book Store would have closed, and these purchasers would have refused, for some reason, to have made the same purchases at the same (or lower) prices from another e-tailer.

**B. Orszag's Offset Opinions Are Unreliable.**

Moreover, even if they weren't irrelevant as a matter of law, Orszag's opinions regarding the amounts of any offset from a damages figure would be independently excluded as unmoored from record facts and unsupported by any rigorous analysis. Orszag opines that Noll "may have overstated" the plaintiffs' damages. He suggests some ways in which those overstatements may exist, some of which he presents "for illustrative purposes only." None of these opinions represents a considered and developed economic analysis that would be of assistance to a jury in either understanding a weakness in the Noll calculation of damages or in using an alternative calculation to arrive at a damages figure. A discussion of his three proposed offsets illustrates the flaws in his analysis.

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incumbent upon Orszag to point to reliable evidence supporting such speculation. He has not.

**1. Would Amazon Have Lowered E-Reader Prices Less?**

Orszag contends that, because the e-reader and e-book are complementary products, Apple may be entitled to an offset from Noll's damages calculation to account for the benefits that consumers received because the prices of Amazon's Kindle declined during the conspiracy period. There is no dispute that the price of Kindles declined in 2010; indeed it had been declining since November 2009 when the price fell by \$140. November 2009 was roughly five months before the iBookstore opened and the Publisher Defendants raised e-book prices. As significantly, Orszag acknowledges that some of the factors that led to the decline in Kindle prices were entirely independent of the price-fixing conspiracy, such as the fierce competition in the e-reader and tablet markets and Amazon's investment in 2010 in the development of the Kindle Fire. Orszag also has no evidence to support a contention that Amazon subsidized one side of its business with another line of business, and agreed in his deposition that he was accepting the proposition that it did not. Despite those realities, Orszag speculates that at least some hard-to-quantify component of that price decline -- Orszag suggests a benefit of [REDACTED] in 2010 alone -- should be

attributed to the conspiracy and is therefore an offsetting benefit from the conspiracy to consumers.<sup>22</sup>

There are many problems with this analysis, but it is only necessary to list a few of them to explain why this entire theory of offset is inadmissible at trial, and why Orszag's opinion must be stricken. First, Orszag's hypothesis rests on layers of assumptions, many of which are untethered to the real world or at odds with the facts. In addition, the sheer length of Orszag's chain of shaky inferences, without any modeling or analysis, invites the jury to speculate about any potential impact on a damages calculation.

Orszag's theory is that Amazon's price cuts on its Kindles during the period of the conspiracy were steeper than Amazon would otherwise have made because the higher prices for e-books set by the Publisher Defendants during the agency period gave Amazon "an incentive to sell devices [REDACTED] in order to

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<sup>22</sup> Orszag admits that he cannot determine whether, or to what extent, in the absence of the price-fixing conspiracy, the price of Kindles would have decreased less or Amazon would have chosen independently to raise the Publisher Defendants' e-book prices. It should be noted that these two "benefit" theories arise from entirely different assumptions. Orszag is assuming that the drop in Kindle prices that did occur was due to the conspiracy that raised e-book prices; and he is assuming that Amazon would have raised e-book prices if there had been no price-fixing conspiracy. Of course, the overwhelming evidence at trial was that no one expected Amazon to raise e-book prices; for this very reason the Publisher Defendants and Apple joined in a conspiracy to wrest pricing control from Amazon and raise those prices themselves.

capture the more profitable content sales." As an "example" of the impact that this phenomenon may have had, Orszag undertakes a back-of-the-napkin calculation.

Orszag's calculation is as follows. Orszag notes that, from 2009 to 2010, Amazon's contribution to profits on devices and accessories went from [REDACTED], and [REDACTED] was more than [REDACTED] of the previous year's contribution to profit. Based on a statement from an Amazon executive that Amazon wanted both e-books and Kindle businesses "sustainable in their own right," Orszag concludes that the [REDACTED] due to increased competition in the device market is exactly equal to [REDACTED]. He assumes that [REDACTED] must have been "due to more vigorous competition . . . unrelated to e-book prices." Orszag then further assumes that none of the swing [REDACTED] should be attributed to that competition between devices. Instead, he assumes that it was "the result of . . . a change in business strategy by Amazon [REDACTED] on devices and attempt to earn [REDACTED] on content through higher e-book prices" given "more profitable content sales" because the Publisher Defendants had raised e-book prices pursuant to the Agreements.

Orszag then uses [REDACTED] figure to calculate a benefit equivalent to a [REDACTED] reduction in the prices of e-books sold by the Publisher Defendants during the conspiracy. This calculation is also jerry-rigged. He starts with the amount

that Amazon collected in e-book revenues in 2010 and multiplies this by [REDACTED] -- which he assumes is the useful life of a Kindle, [REDACTED]. Indeed, Orszag cites no evidence of a useful life [REDACTED]. He asserts that the resulting figure, approximately [REDACTED], is the e-book revenue expected over the useful life of Kindles sold in 2010. Orszag next divides those revenues by [REDACTED] that Amazon [REDACTED] on its devices in 2010, and calculates that that [REDACTED] is equivalent to [REDACTED] of the anticipated [REDACTED] e-book revenue linked to 2010 Kindle sales. Next, Orszag calculates the percentage of Amazon's 2010 e-book revenue for which the Publisher Defendants' titles were responsible: 47%. The final step of the calculation is to determine the percentage of the Publisher Defendants' e-book revenue equivalent to Amazon's [REDACTED] on Kindle devices. To do this, Orszag divides [REDACTED] ([REDACTED] as a percentage of expected e-book revenue) by 47% (the Publisher Defendants' share of that revenue), to get [REDACTED].

The result of this long chain is a conclusion that Amazon's [REDACTED], which Orszag speculates would not have existed but for the e-book conspiracy, are equivalent to a [REDACTED] price reduction in the price of the Publisher Defendants' e-books. This is a substantial portion of the damages figure that Noll's regression model has calculated. Noll's model finds that the

Publisher Defendants' e-book prices were 18.1% higher, on average, as a result of price fixing.

It is only necessary to mention a few of the deficiencies in Orszag's calculation. An economist who wished to measure the effect of competition within the e-reader market on e-reader prices would undertake an examination of that market and perform a study. Orszag did not. He simply took a single, general remark about Amazon's goals from an Amazon executive and extrapolated from that. Orszag therefore has no basis for the central assumption in his string of assumptions, that is, that every penny [REDACTED] in 2010 from sales of the Kindle may be attributed to the rise in e-book prices and is not attributable to competition in the e-reader market or anything else.

Second, as was already alluded to, Orszag has identified no reliable basis for determining that Kindles have a [REDACTED] useful life. If Orszag had chosen a [REDACTED] useful life -- which, as Orszag admits, [REDACTED] -- he would have calculated an implausible benefit equivalent to a [REDACTED] price reduction in the price of e-books, all other components of his calculation remaining the same. Because Noll finds only an 18.1% average overcharge, Orszag's price reduction would be so great that all of the damages attributable to the antitrust violation would be wiped out.

Third, Orszag has identified no basis for attributing all of Amazon's e-book revenue in 2010 to purchases made by consumers using their Kindles, let alone to purchases made by consumers using Kindles purchased in the year 2010.

Fourth, Orszag's analysis ignores changes in the e-books market that caused e-book demand to grow rapidly during the period of the conspiracy despite the significant hike in e-book prices. All by itself, this rise in the demand for e-books requires a careful analysis before any reliable conclusions can be drawn about any effect of a price rise in the e-book market on e-reader prices. Without performing that analysis, Orszag simply assumed a connection between price changes in two distinct albeit related markets. The fact that two phenomena occur in the same period of time does not prove that they are related or how they are related, much less that one caused the other. There are scientific tools to study relationships between phenomena, or markets, and to confirm causality; Orszag has employed none here.

Finally, Orszag does not dispute evidence that sales of Amazon's Kindle in 2010 were [REDACTED]. This strongly suggests that [REDACTED]. In any event, to create admissible expert testimony, an expert would be required to examine the impact on his hypothesis of this fact as well.

In sum, Orszag's calculation does not illustrate anything that would be useful to a jury. Rather, it would merely invite the jury's speculation. For the absence of "the same level of intellectual rigor that characterizes the practice of an expert" economist, Kumho Tire Co., 526 U.S. at 152, for its flawed assumptions, and for its invitation to engage in guesswork, Orszag's opinion is barred by both Rules 702 and 403.

## **2. Self-Published and Free E-books**

Orszag conjures up another illustration of how consumers might have benefitted from e-book price fixing, this time from competition between Apple and Amazon and the creation of the iBookstore. Orszag suggests that that competition may have benefitted e-book consumers by increasing the availability of self-published and free e-books,<sup>23</sup> and that the plaintiffs' damages figure "may" be overstated "by a significant amount" if this benefit is ignored.

As already discussed, there are evidentiary and legal hurdles to relying on an assumption that the creation of the iBookstore was due to the price-fixing conspiracy. But, even if Apple were able to establish these connections, the many other

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<sup>23</sup> Orszag discusses both free, self-published e-books and e-books provided free to readers by Apple, Amazon and Barnes & Noble. Some or perhaps most of these free e-books were already available on the internet through Project Gutenberg. Orszag does not contend that any free e-book title was made available by Apple only.

problems with this set of Orszag's illustrations would bar this testimony at trial.

First, this analysis is not tethered directly to the Publisher Defendants' e-books or their price-fixing conspiracy. It concerns self-published e-books and free e-books, which by definition are not e-books published by one of the Publisher Defendants. Apple has not provided any theoretical basis, either legal or economic, for including an adjustment for the "sale" of self-published or free e-books to a calculation of the damages caused by the Publisher Defendants and Apple fixing the prices of other e-books.

Second, Orszag does not even purport to reliably calculate the supposed benefits to consumers from the self-publishing or free e-book phenomena. He has created no model based on economic theory and has done no rigorous study. Instead, as he readily admits, he has selected arbitrary figures "only for illustrative purposes." He muses that if, for instance, 25% to 50% of the increase in self-publishing were due to the creation of the iBookstore, and one applies a certain demand curve for e-books, then that would "suggest[]" that the benefit to consumers from the increase in self-publishing was "approximately" \$15 million to \$30 million.

Similarly, "to illustrate the potential impact of the increase in free e-books," he assumes that 25% to 50% of the

increase in free e-books was due to the creation of the iBookstore, and then assumes (with no explanation for why this is so) that consumers are willing to pay \$0.50 for a "free" e-book. From this, Orszag calculates a benefit of between \$20 million and \$41 million "for illustrative purposes only."

Such guesswork does not meet the Daubert standards for the admission of expert testimony and would not assist the trier of fact in setting damages. See Rosen, 78 F.3d at 319 ("[T]he courtroom is not the place for scientific guesswork, even of the inspired sort" by well-qualified experts.) Again, it would invite speculation and is not relevant to the tasks to which this damages trial will be addressed. It is barred by Rules 702 and 403.

### **3. iBookstore and Nook Book Store Purchases**

Orszag offers a third set of illustrations to suggest that consumers may have benefitted from the price-fixing conspiracy in a manner that should be taken into account when calculating their damages. These illustrations assume that certain e-book sales would not have occurred but for the price-fixing conspiracy.

Orszag's analysis begins with the iBookstore. He assumes that but for the conspiracy, the iBookstore would not have launched. He recognizes that some sales of e-books made through the iBookstore would have occurred, via another e-tailer, even

if the iBookstore had never launched, but he also assumes that some percentage of sales would not have occurred. Orszag reasons that some iPad owners would not have used an app on their iPad to purchase an e-book from another e-tailer -- for instance, Amazon -- or would not have had another device for reading e-books. Acknowledging that it "is difficult" to make this "estimate," Orszag guesses that 15% of iBookstore sales may not have occurred in the but-for world,<sup>24</sup> and accordingly that Noll overstates damages by between \$2 and \$6 million.

Orszag makes similar assumptions with respect to Barnes & Noble's Nook Book Store. He assumes that the Nook Book Store would not have been profitable in the but-for world, and consequently that Barnes & Noble would have shuttered its e-bookstore shortly after investing tremendous sums into its Nook platform. Orszag ignores the fact that the Nook Book Store still exists today, nearly two years after the end of the collusive Agreements. Guessing that 15% of Nook Book Store sales would not have occurred in the but-for world, Orszag calculates that Noll's model overestimates damages by between \$5 and \$14 million.

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<sup>24</sup> To arrive at the 15% figure, Orszag looked at the percentage of Apple customers who purchased three or fewer e-books and the percentage of Apple customers who do not own a Kindle. He does not discuss whether there is any basis to find these two sets of Apple customers overlap or whether such an overlap is material to this choice of a 15% figure.

Again, Orszag's guesses fall far short of professional standards and would not assist the trier of fact. Accordingly, Orszag's opinions regarding the offsets are also barred under Rules 702 and 403.

**C. Orszag's Criticisms of Noll's Definitions of His Control Group and Time Period**

Orszag's fourth opinion, regarding Noll's definition of the control group and time period for his regression analysis, is admissible. Orszag's opinion is sufficiently supported, as Orszag re-ran Noll's regression using a control group limited to the Big Six and a date range limited to the 24 weeks before April 1, 2010 and the 24 weeks after.

The States do not challenge this opinion. Class plaintiffs' only argument in favor of exclusion rests on estoppel. They argue that Apple should be judicially estopped from making this argument, through Orszag, because Apple's prior expert, Dr. Michelle Burtis, criticized a different expert of the plaintiffs for failing to include all publishers and for not extending the time period.

Judicial estoppel generally applies where

- (1) a party's later position is 'clearly inconsistent' with its earlier position;
- (2) the party's former position has been adopted in some way by the court in the earlier proceeding; and

(3) the party asserting the two positions would derive an unfair advantage against the party seeking estoppel.

In re Adelphia Recovery Trust, 634 F.3d 678, 695-96 (2d Cir. 2011) (citation omitted). In addition, judicial estoppel will only be applied “where the risk of inconsistent results with its impact on judicial integrity is certain.” Id. (citation omitted).

Here, because the Court did not adopt Burtis’s critique in the Liability Opinion, judicial estoppel is inapplicable. Thus, class plaintiffs’ motion to exclude is denied with respect to Orszag’s opinion regarding Noll’s control group and time period.

#### **D. Apple’s Argument Regarding the Burden of Proof**

Apple argues repeatedly that it need not present any definite economic analysis because the burden of proof regarding damages is on plaintiffs. Apple is correct. The burden of persuasion is on the plaintiffs and Apple is under no obligation to call any expert or present any independent analysis of damages. Apple may rely entirely on a cross-examination of Noll regarding the choices he made in constructing his model. That cross-examination may be wide-ranging and vigorous so long as Apple has a good-faith basis for the line of cross-examination and the line does not run afoul of the Federal Rules of Evidence. Apple may then argue on the basis of such cross-examination at summation.

What Apple does not have the right to do, however, is to call an expert economist to present opinions unless those opinions are the product of the expert's rigorous application of economic methods. No expert may offer an opinion inadmissible under Rules 401, 702, and 403 of the Federal Rules of Evidence, and no party may call an expert unless that expert has an admissible opinion to offer. Each of the opinions stricken today runs afoul of one or more of these Rules of Evidence.

#### **IV. Apple's Request for a Hearing**

Apple has belatedly requested a Daubert hearing on plaintiffs' motions to exclude,<sup>25</sup> but such a hearing would be unnecessary.<sup>26</sup> A district court is granted "the same kind of latitude in deciding how to test an expert's reliability, and to decide whether or when special briefing or other proceedings are needed to investigate reliability, as it enjoys when it decides whether or not that expert's relevant testimony is reliable."

Kumho Tire Co., 526 U.S. at 152. "While the gatekeeping function requires the district court to ascertain the

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<sup>25</sup> Apple did not request a hearing in its January 21 opposition to plaintiffs' motions to exclude, which were fully submitted on February 4, 2014. It first requested a hearing on these motions weeks later, in its February 21 opposition to class plaintiffs' motion for summary judgment.

<sup>26</sup> Much of this discussion also appears in the class certification Opinion; it is reproduced here for ease of reference.

reliability of [an expert's] methodology, it does not necessarily require that a separate hearing be held in order to do so." United States v. Williams, 506 F.3d 151, 161 (2d Cir. 2007); accord In re United States Foodservice Inc. Pricing Litig., 729 F.3d 108, 129-30 (2d Cir. 2013); Nelson v. Tenn. Gas Pipeline Co., 243 F.3d 244, 248-49 (6th Cir. 2001); Oddi v. Ford Motor Co., 234 F.3d 136, 155 (3rd Cir. 2000). When a hearing would be a mere "formality," it is not required. Williams, 506 F.3d at 161.

Plaintiffs' motions to exclude are based wholly on written materials, not disputed issues of fact best resolved through live testimony. The written record is robust, including memoranda of law totaling nearly 160 pages, declarations and sur-reply declarations from both Kalt and Orszag, and transcripts of the depositions of both experts. And it is manifestly clear from the papers that Kalt's and Orszag's opinions cannot pass muster under Rules 401, 702, and 403.

Apple has not explained how it believes a hearing would aid the Court in deciding these motions. Expert discovery has closed, and Kalt and Orszag may not revise or supplement their declarations. Because there are no factual issues that might be elucidated by live testimony and the proper resolution of plaintiffs' motions is not in question, no hearing is necessary.

**V. Apple's Request to Stay Decision on Daubert Motions**

Apple argues that it is premature to rule on plaintiffs' motion to exclude for purposes beyond class certification, including trial. But, the December 9, 2013 Joint Stipulation and Scheduling Order, which set deadlines for the briefing on the class certification and Daubert motions, required the parties "to file any Daubert motions" by those dates (now passed) and provided that expert discovery would close on January 31, 2014, and be completed before the filing of summary judgment motions.

In addition, in resisting the class plaintiffs' motion for summary judgment, Apple has relied on Kalt's and Orszag's opinions. It asserts that their opinions raise questions of fact as to the reliability of Noll's model that may only be resolved at trial. For this additional reason, it is necessary for this Court to grapple now with the motions to strike those opinions. Thus plaintiffs' motions to exclude Kalt's and Orszag's testimony are ripe.

Apple also argues, in a separately filed motion for suggestion of remand to the Judicial Panel for Multidistrict Litigation ("JPML"), that these actions should be transferred to their original venues for a decision on summary judgment and trial, and that those courts should decide motions to exclude Apple's experts' opinions for purposes beyond class

certification. But, it is in the interest of judicial efficiency, and consistent with the statute governing coordination of multidistrict litigation, 28 U.S.C. § 1407, for this Court to decide these motions regardless of whether these cases are ultimately remanded to separate venues for trial.

Section 1407 provides in relevant part that “[w]hen civil actions involving one or more common questions of fact are pending in different districts, such actions may be transferred to any district for coordinated or consolidated pretrial proceedings.” As the JPML has recognized, “pretrial, as an adjective, means before trial -- that all judicial proceedings before trial are pretrial proceedings.” In re Plumbing Fixture Cases, 298 F. Supp. 484, 494 (J.P.M.L. 1968). And Daubert motions are pre-trial motions. See Charles Alan Wright & Arthur R. Miller, et al., 15 Fed. Prac. & Proc. § 3866 (4th ed. 2013) (“Transferee courts may decide motions . . . regarding qualifications of witnesses under Daubert.”).

While a court has discretion to suggest remand prior to the end of pre-trial proceedings, the standard to be applied is whether such early transfer will promote judicial efficiency. “[T]he essential purpose of section 1407 [is] to promote the just and efficient conduct of complex multidistrict litigation.” Shah v. Pan Am. World Servs., Inc., 148 F.3d 84, 92 (2d Cir. 1998) (citation omitted). Here, where the States and the class

plaintiffs have jointly retained one damages expert, whose opinions Apple has moved to exclude, and the States and class plaintiffs have jointly moved to exclude the opinions of Apple's two experts, the resolution of these motions by this Court is in the interest of judicial efficiency, regardless of how Apple's motion for suggestion of remand is decided.

#### **CONCLUSION**

Plaintiffs' December 18, 2013 motions to exclude Kalt's opinions are granted. The States' December 18 motion to exclude certain of Orszag's opinions is granted, and the class plaintiffs' December 18 motion to exclude Orszag's opinions is granted in part.

#### **SO ORDERED:**

Dated: New York, New York  
March 28, 2014

  
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DENISE COTE  
United States District Judge